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ALAMEDA COUNTY PLANNING DEPARTMENT

399 Elmhurst Street, Hayward, California 94544

ph 783:5800

July 3, 1973

Alameda County:
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City and County of San Francisco
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East Bay Regional Park District
Air Pollution Control Board
San Francisco Public Utilities Commission
United States Dept. of Agriculture, Soil Cons. Ser.
California Division of Forestry
Federal Aviation Agency
City of Pleasanton
Pacific Gas & Electric Company

Gentlemen:

Attached please find reproductions of "Ecological Appraisal of Diamond A Ranch, Alameda County in Relation to Surrounding Lands" by M. W. Cummings, Wildlife Ecologist, and a report prepared by Bruce Elliott, Unit Manager - Biologist, State Department of Fish and Game.

This material has been submitted in behalf of William W. Apperson, to supplement that material contained in the "Draft Environmental Impact Report-Conditional Use Permit (C-2534) and Variance (V-6050) for William W. Apperson and Diamond A Ranch" which was distributed on May 18, 1973.

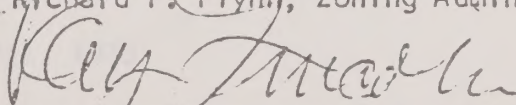
This data completes the draft form of the Environmental Impact Report. Comments on the basic document and this supplemental material will be received until July 25, 1973 when the Draft will be corrected, revised or otherwise modified into final form.

This report and the cited Conditional Use Permit and Variance will be the subject of a continued public hearing on July 10, 1973, but the hearing cannot be concluded prior to completion of the Final Environmental Impact Report. It is therefore anticipated that the hearing will be continued for a period appropriate to the then existing circumstances.

Very truly yours,

Richard P. Flynn, Zoning Administrator

by:


Ray Lincoln, Planner II

RPF:RL:rc

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ECOLOGICAL APPRAISAL

OF

DIAMOND A RANCH, ALAMEDA COUNTY

IN RELATION TO SURROUNDING LANDS:

- a. At present
- b. As affected by proposed recreational development

by

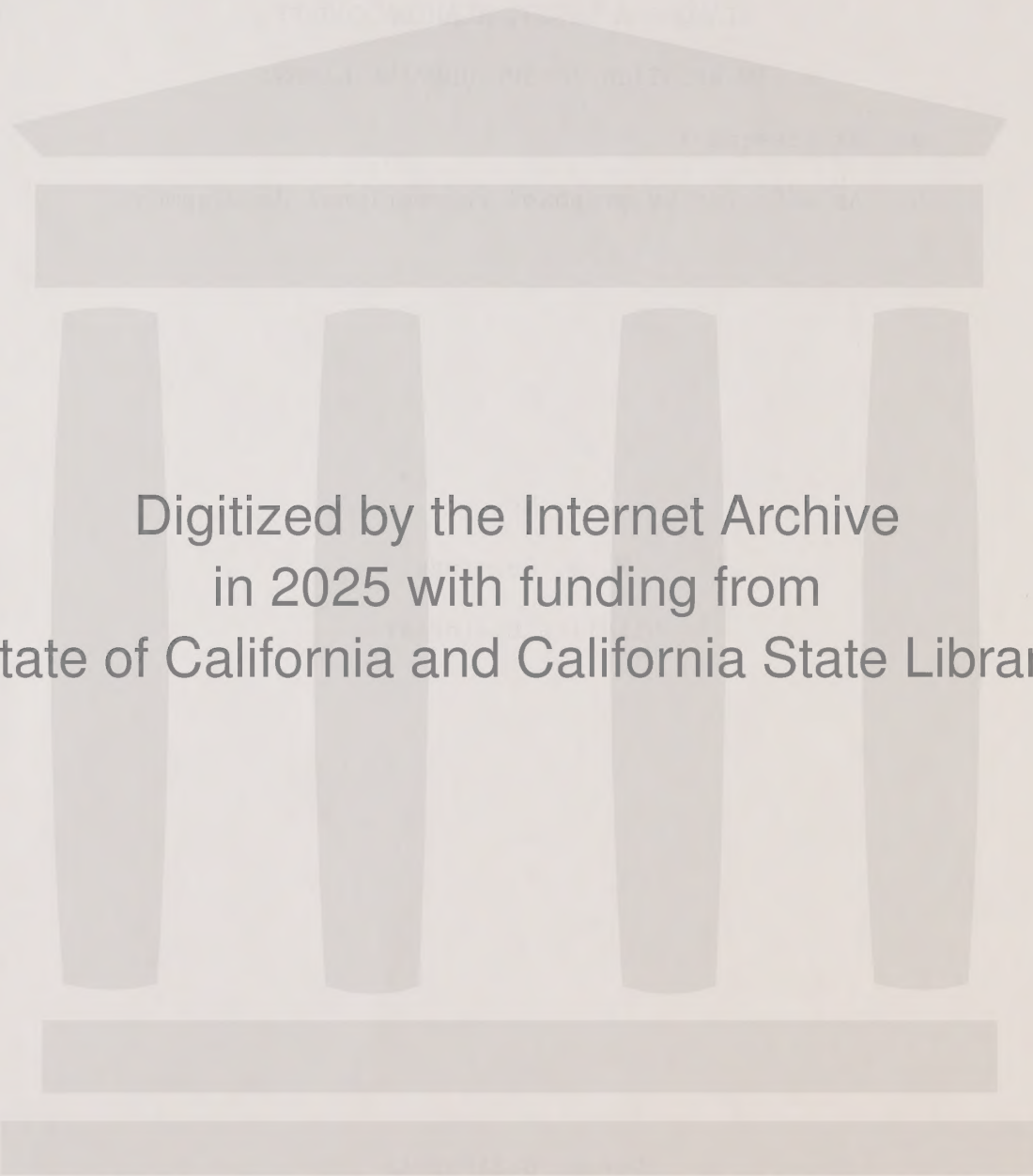
M. W. Cummings

Wildlife Ecologist

Davis, California

Revised April, 1973

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CONTENTS

	<u>Page</u>
Introduction	1
Life zones	1
Ecologic formations	2
Life zone map	3
Biotic provinces	4
Geographic units	4
Animal and plant distributions	4
Natural resource evaluation - Diamond A Ranch	6
Wildlife resource summary	8
Recreational values	11
References	13
Qualifications of the author	15

INTRODUCTION

A summary picture of the Diamond A Ranch--legal description, size, location, soils and vegetative cover, cattle operation and ranch economics--is given in the January, 1969, report of A.D. Reed, "A Brief Appraisal of the Effect of a Quarry Operation on the W.W. Apperson Ranch, Pleasanton, California."

Evaluation of its biotic resources and potential requires more detailed description of plant and animal life of the ranch, review of its relative importance in the biology of the region and some definitions of ecological terms.

To begin with ecology, this is the study of the relations of animals and plants, particularly of animal and plant communities, to their surroundings, animate and inanimate. It is one field in the broad science of biology, the study of living things. Biotic factors are environmental influences that arise from activities of living organisms, as distinct from others, for example, climatic factors. Hence, biotic ecology is study of plant and animal communities in mutual association with their environment.

LIFE - ZONES

Naturalists have developed an accepted nomenclature to describe areas of ecological similarity. Certain plant (floral) and animal (faunal) communities are typically present in given areas, rarely present or absent in others. Obviously, this is due to variations in life requirements, particularly climatic influences, soil-plant interdependence, and plant-animal support.

This method of outlining animal and plant distribution is called the life-zone system. Figure 1 shows a greatly simplified life-zone map of California. Without going into detailed review of all factors, it is obvious that the basic determination of zones is due to climatic temperature. Therefore altitude, and to a lesser degree latitude, are primary elements. Zone boundaries are not abrupt and intergradation of plants and animals is to be expected; the major observable division of life forms in California occurs between the Upper Sonoran and Transition life-zones.

Within zones of similar temperature gradients, organisms vary widely due to different conditions of rainfall and humidity. Also, any one species may not occur throughout the geographic area of the zone or zones to which it is usually ascribed, or in all the ecologic strata of that zone at any one place.

ECOLOGIC FORMATIONS

More precise identification of animal and plant distribution is expressed by further classification systems. Gross plant formations in which animal forms are associated are: forest; scrub; woodland; grassland. Within these broad types, called biomes, further subdivision gives even finer description: forests may be deciduous (broadleafed) or coniferous (evergreen); scrub may be sagebrush, desert or chaparral; woodland may be pinon pine-juniper, riparian woodland (trees found along watercourses) or oak-grassland; grassland can be alpine meadows, savanna (open, but with scattered, individual trees), or true grassland (no trees).

BIOTIC PROVINCES

Further delineation is provided by the term biotic province, which is primarily a geographic unit. Each biotic province, or area, may contain several life-zones and several biomes. The essential feature of the biotic province or area is some distinctness of its fauna (animal life). Faunal barriers may be zonal, biotic or physiographic.

Biotic areas are significant then, only as the fauna are unique, and all of California's fauna may be lumped into four biotic provinces.

GEOGRAPHIC UNITS

Still smaller units are necessary to be meaningful in describing or studying animal and plant associations on a practical scale. Of interest to this report are the Great Valley and the San Francisco Bay geographic units which represent distinct biotic districts and their boundary is well defined climatically. A third unit, further distinct from the first two, is the San Benito district, an ecological name applied to the Diablo Range area, a part of the Central California Inner Coast Range. Some writers refer to biotic provinces and their smaller geographic units as wildlife regions and sub-regions.

The important point here is not terminology but the fact that even the smallest units or sub-regions as they are variously called are still large geographic areas.

ANIMAL AND PLANT DISTRIBUTIONS

Although some rare forms of plant or animal life may occur only in a few local areas, most are distributed over a relatively great expanse.

Common species typical of certain geographic units are known as indicator species. The presence of these plants indicates climate and soils favorable for their growth requirements. For example, the digger pine (*Pinus sabiniana*) is one of the easily recognized trees of the Diablo Range. It is found on the north and east slopes of Mt. Diablo, on Mt. Hamilton's slopes and elsewhere throughout the San Benito District. However, it also is common on dry, shallow soils in hot valleys and foothills from the Klamath, Trinity and Sacramento River headwaters, through the Sierra foothills, central ranges of California north of the bay, southward in both Sierras and Coast Ranges to Tehachapi Ranges and slopes of Antelope Valley. Reference to Figure 1 and some knowledge of climatic similarity of the areas mentioned as within the range of the digger pine make this vast distribution understandable.

Comparable descriptions can be made of other plant species found in the San Benito District such as the grassland composition of fescues, cheat grass, bromes, and others found in the hot, dry summer, type lands of the State along with their companion oak trees.

Among typical animal species of the District, outstanding as to numbers, distribution, familiarity to observers and ecological importance are black-tailed deer, California quail and California ground squirrels ("digger squirrel"). Many lesser species, and less well known species, of course, occur. As with the indicator plants, most of these mammals, birds, reptiles and amphibians also enjoy wide distribution in favorable habitat throughout the San Benito District and elsewhere in their respective life-zones and ecologic formations of the State.

NATURAL RESOURCE EVALUATION - DIAMOND A RANCH

Using the introductory descriptions as background, we can fit the Apperson Ridge area and its larger ownership unit, the Diamond A Ranch, into ecological perspective. It occupies a very small position at the northern fringe of the San Benito (or Diablo Range) geographic unit, which is one of many definable units within the Californian biotic province. (This is all of California except the northeast portion which is Great Basin in character, the boreal zone made up of high altitude coniferous forests, and the lower desert areas.) The Ridge itself is an example of a grassland biome. The Diamond A Ranch in total is part of the oak-grassland ecologic formation. The ranch and the entire San Benito (Diablo Range) unit are Upper Sonoran Life-Zone in character.

The northern tip of the San Benito geographic unit on which the Diamond A Ranch is situated is bordered on the east by the Great Valley unit (hotter, drier, Lower Sonoran Life-Zone), cut off to the north by the marine climate influences of the Bay and Carguinez Straights, and abruptly bounded on the west by the cool, moist, San Francisco Bay unit.

The Diamond A Ranch is almost exactly 2 miles east-west and north-south. These 4 square miles are a very minute portion of the San Benito Ecologic District which contains over 1,000 square miles stretching from about Pleasanton to Paso Robles. Animal and plant communities of the ranch are innumerably replicated throughout this region as well as in countless other locations scattered within the State's prodigious Upper Sonoran zones.

The grassland cover of the entire crest of Apperson Ridge within the borders of the ranch is the standard cheat grass, bromes, fescues, (primary species) found on thousands of California's hot, dry summer acres.

Maximum elevation of the ridge within the Diamond A property is about 2,300 feet. As the ridge continues southward beyond the Diamond A boundary, its height increases and its extension toward Mt. Hamilton is known as Valpe Ridge. The next parallel ridge eastward, separated from Apperson-Valpe Ridges and from the Diamond A Ranch by a canyon with an elevation drop of over 1,000 feet, is called Wauhab Ridge and it too exceeds the height of Apperson Ridge. Both Valpe and Wauhab Ridges (about 3,000 feet elevation) are high enough to support tree growth on their crests, both oak and pine. Apperson Ridge does not.

This open grassland vegetative type is described in the State Fish and Game Department's California Fish and Wildlife Plan as the lowest in wildlife numbers and wildlife values of the major habitat types in the State. Where grassland borders woodland or scrub it is of some feeding value. This would be exemplified on Apperson Ridge by limited deer usage during the months when the forage is palatable. During those wet, green winter months, forage is practically unlimited; the critical time for deer in this area is during the hot, dry summer season. Dry grassland such as Apperson Ridge is of little deer forage value during that time.

Quail are much more restricted from grassland, their existence being absolutely confined to micro-habitat which includes water, food plants, roosting trees, and ground cover for escape and protection.

Occasional transient passage of the open grassland by deer, coyote, fox, badger, feral domestic dogs and even mountain lion no doubt occurs. Grassland-using birds such as horned larks, mourning doves and others occur there in season. Hunting flights and migratory passage would record "flyovers" by such raptorial birds as turkey vultures, owls, sparrow hawk, red-tailed hawk, marsh hawk, white-tailed kite, golden eagle and

perhaps others but they cannot actually reside on the ranch ranges.

California ground squirrels, pocket gophers and field mice are the principal fulltime inhabitants of the area. It is their presence, detrimental to the ranch's only present economy, livestock raising, which attracts visits by the small predators and the raptorial birds. The only reductional control of rodents by the Diamond A operators has been selective shooting of ground squirrels; no rodent poisoning or other pesticidal chemical use has been permitted.

Reptiles and amphibians are scarce on the open grasslands. As with deer, quail, and other forms of animal life, they find more favorable habitat in the oak-woodland and riparian woodland. Such populations would be little affected by planned developments.

WILDLIFE RESOURCE SUMMARY

The ranch does not host any mammals, birds, reptiles, amphibians or fish listed as Rare and Endangered Species in the report by that name published in 1968 by the Bureau of Sport Fisheries and Wildlife, U.S. Department of the Interior.

Technical exception to this statement is that the prairie falcon (*Falco mexicanus*) is listed as a rare species and the peregrine falcon (*Falco peregrinus*) as an endangered species and all of California is within their range, which extends from British Columbia and Saskatchewan to Baja California and Texas. These falcons, like other wide-ranging, raptorial birds, may at times pass over or hunt above the Diamond A Ranch but such passages would be rare because the ranch does not contain any rocky crags used as nesting sites.

All raptorial birds, hawks, owls and eagles, are fully protected species. Chief conservation measures are protection of nest sites and protection from chemicals and indiscriminate shooting. Both State and

Federal wildlife agencies say that decrease of general habitat, that over which these raptors fly or hunt, is not a major problem nor is maintenance or acquisition of airspace habitat significant to protection. This means that since nest areas are not involved in Diamond A Ranch development the proposed changes in land use will have little or no effect on raptorial bird populations.

The resident deer population, although an attractive resource, is not a significant herd in any regional sense. Since ranch policy prohibits hunting there is no applied management of deer numbers which are limited only by habitat capacity.

A theoretical average deer population in California has been put at 13 per square mile (this may go as high as 100 in top habitat on the North Coast). Since total California deer populations are variously estimated at between one and two million, the 50 head or so on the Diamond A Ranch are an insignificant portion.

Since deer are very tolerant of human activity, they would not be turned away by development. They would be expected to become nuisances by destruction of ornamental plantings unless these were fenced or otherwise protected from browsing.

Populations of California quail on the ranch are limited by available suitable habitat. Development would not materially affect quail numbers one way or the other. The ranch has never permitted quail hunting and since, like deer, quail are very tolerant of human activity they would be expected to remain in suitable areas.

In summary, the Diamond A Ranch is not an area of outstanding wildlife values. It is significant only by being a large open-space area. Low to moderate numbers of a few common species of wildlife occur,

principally deer, quail and non-game species in the oak-woodland pockets and riparian vegetation at the lower ranch elevations. These species are widely distributed throughout the State.

The proposed development of approximately 10% of the total ranch area would, of course, result in some wildlife habitat loss. The space to be covered by roads and structures would be lost, but since plans call for retention of all possible vegetation, both trees and ground cover, and since additional planting of native or suitable introduced vegetation will be made, the intermediate areas will continue as habitat. The remaining 90% of the ranch will be continued in present use, seasonal cattle grazing.

As stated above for individual species, deer and quail, the overall result to wildlife will be local displacement on the actual structurally developed areas to adjacent areas. This will create temporary competition within species but local populations are already limited by habitat and restricted in diversity by its composition and quality. Any loss of wildlife will be very localized with no endangerment to the species as a whole.

Because of the landscape plantings and revegetation to be implemented in the project which will create habitat and improve its quality by watering and cultural care given to such landscaping, the net result for wildlife habitat may be an increase. In addition to the potential for deer damage to plantings, other nuisance and damage may be anticipated from English sparrows, house finches, domestic pigeons, woodpeckers, tree squirrels, gophers, mice, ground squirrels, skunks, and possibly other animal species.

RECREATIONAL VALUES

Past management policy and practices of the Diamond A Ranch have not included recreation per se. Its private ownership status and operation as a cattle ranch have prohibited public access for hiking, horseback riding, nature study, wildlife observation and other recreational uses. The inclusion of non-consumptive recreational uses of such a large unit of open space close to heavily-populated urban centers and adjacent to public park lands offers enormous social-ecological values.

There is no question of the desirability and need of open space and of any and all types of recreational areas particularly in the proximity of large urban areas. This subject has been studied and reported upon by many agencies and will continue to be an urgent need and an object of planning, study and action. Notable are the reports of the federal Outdoor Recreation Resources Review Commission and Bureau of Outdoor Recreation, and the State of California's Public Outdoor Recreation Plan. Other federal, state, municipal, regional, university and private bodies have contributed to such studies.

These reports illustrate that much is yet to be learned about recreational goals of individuals. "Multiple use" is the theme so as to provide as much recreation as possible. Certain standards have evolved and both federal and state recreation plans agree on recreation area types and general objectives of each. These range from wilderness accessible only by foot, canoe or horseback to day-use parks in urban centers. Such reports also outline the roles of the respective governmental agencies and of the private sector. Private development is encouraged and commended.

The recreational development proposed for the Diamond A Ranch is "multiple-use" within the ranch itself. Intensive and extensive, indoor and outdoor, recreational opportunities are blended into the proposal. The intensive developments planned on 145 acres will be nuclei for extending outdoor recreational pursuits throughout the 1300 acre ranch. This volume of opportunity for such use of a great expanse of formerly closed natural area is tremendous.

The character of the intensive recreational developments and the nature of the extensive recreational forms will not be detrimental to the overall physical and biological environment of the ranch and surrounding area.

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Maynard W. Cummings

Date of Birth: March 4, 1917.

Education: Colorado State University. B.S., Forestry-Wildlife Mgmt. 1939
Colorado State University. M.S. graduate study-Wildlife Mgmt.
1947-48.

Professional Experience:

Wildlife biologist (seasonal) U.S. Soil Conservation Ser.,
New Mexico, 1938.

U.S. Park Ranger, U.S. Nat'l. Park Ser., Rocky Mtn. Nat'l.
Park, Colo., 1939-40.

Wildlife research biologist, U.S. Fish & Wildlife Service,
Colo., 1940-43.

Commissioned specialist (Ens.-Lt.) U.S. Navy, 12th N.D. &
Pacific, 1944-46. Epidemiology-malaria and rodent
control, Pacific Is., China.

Wildlife research biologist, U.S. Fish & Wildlife Service,
Colo., 1946-49.

Asst. State Supervisor, Wildlife, U.S. Fish & Wildlife Service,
Calif., 1949-56.

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Colo., 1956-59.

Wildlife management specialist, A.E.S.-Zool., Univ. Calif.-Davis,
1959-

Foreign Experience (civilian):

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